

# Israel Biophysical Society Meeting

## 15 January 2019 / Tel Aviv University

8:30-9:15  
9:15-9:30

Registration + Coffee  
Welcome words

### Joint session 1 (Lev): Chair, Roy Beck

09:30 -10:00 **Elisha Hass** (BIU): The protein folding mechanism: bottom-up or top-down?  
10:00 -10:30 **Keynote: Gijse Koenderink** (AMOLF): Living in a mechanical world

10:30-11:00

Coffee break

### Parallel session 1: Extra-Cellular Matter (Melamed): Chair, Yair Shokef

11:00-11:30 **Ayelet Lesman** (TAU): Mechanical aspects of fibrous networks embedded with contractile cells  
11:30-12:00 **Liraz Chai** (HUJI): Zooming into the extracellular matrix of a bacterial biofilm

### Parallel session 2: Active Living Matter (Lev): Chair, Yoav Lahini

11:00-11:30 **Nir Gov** (WIS): Pair formation in insect swarms driven by adaptive long-range interactions  
11:30-12:00 **Ofer Feinerman** (WIS): Regulation of collective food flows in ant colonies

12:00-14:00

Lunch + Poster session

### Parallel session 3 – Cell Population Dynamics (Melamed): Chair, Yasmine Meroz

14:00-14:30 **Naama Brenner** (IIT): Testing for ergodicity in dividing cell populations  
14:30-15:00 **Rami Pugatch** (BGU): Self-assembly of ribosomes leads to overlapping reproduction cycles and increase growth rate  
15:00-15:15 **Amir Porat** (TAU): Dynamics of interacting growth-driven systems inspired by plant tropisms  
15:15-15:30 **Yuval Edri** (BGU): Shaping the asymmetry of localized frequency-locking waves by a generalized forcing and implications to the inner ear

### Parallel session 4: From Single Molecule to Cell Dynamics (Lev): Chair, Shlomi Reuveni

14:00-14:30 **Ronen Zaidel-Bar** (TAU): New insights into the assembly, structure and function of cadherin-mediated adhesions  
14:30-15:00 **Ronen Berkovich** (BGU): The dynamics of single proteins under force  
15:00-15:15 **Amnon Buxboim** (HUJI): Evaluating embryo developmental potential based on deep learning of time-lapse imaging and real-time rheology  
15:15-15:30 **Raya Sorkin** (TAU): Membrane binding, bending and remodeling by calcium sensor proteins

15:30-16:00

Coffee break

### Joint session 2 (Lev): Chair, Yael Roichman

16:00-16:30 **Eran Sharon** (HUJI): Quantification of shape and shape fluctuations of self-assembled chiral peptide nano-ribbons using incompatible elasticity theory  
16:30-17:00 **Ariel Kaplan** (IIT): Under the hood of a cellular supercar: DNA unwinding by RecBCD  
17:00-17:30 **Yuval Garini** (BIU): DNA Origami structures for biophysical and in vivo applications

17:30-17:45

Goodbye words



The Center for Physics and  
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